KPFF and the consultant team were tasked with accelerating the development of new alternatives for SR-519 Phase 2. KPFF was to freely generate a wide range of alternatives and subject these alternatives to review using a series of design Charrettes, which provided inspiration for creative new ideas while focusing the project on a selected group of preferred alternatives. The project approach and methodology are further described below.

Design Effort Process

KPFF internal Implementation and Review/Charrette Teams assembled for this project met on October 17, 2005 to discuss process. The outcome was the Feasibility Study Process Flow Diagram shown on Page 6. This process diagram was presented to WSDOT on October 18, 2005 in the first of three Design Charrettes.

In addition to KPFF, consultant team members included The Transpo Group (traffic analysis), Makers Architecture & Urban Design (context-sensitive design considerations), and Baillie & Associates, Inc. (project management).

Design Charrettes

The Design Charrettes were an integral part of the process to identify potential alternatives, review progress and solicit feedback from WSDOT. Three Design Charrettes were held between team members and WSDOT during the process. In addition to the Charrettes, WSDOT participated in additional team meetings to review progress to date and identify preferred options within the alternatives developed. Charrettes were, by design, free form and open to encourage the ready and uninhibited flow of ideas.

Evaluation Criteria

1. Purpose – Does it accomplish the project's purpose and need?
2. Sensitivity – Does it address stakeholder objectives?
3. Cost – Can it be reasonably implemented?
4. Flexibility – Does it provide flexibility for future land use changes, projects, developments, etc.?
5. Phasing – Can it be accomplished in discrete phases that fit available funding?

Alternative Development, Refinement, and Evaluation

Following the Charrettes and integrated into the Alternative refinement process, KPFF screened 21 alternatives for their ability to meet the evaluation criteria and other priorities of the project stakeholders. Most of the alternatives were screened (not developed further) based on:

1. Less than optimal achievement of criteria
2. Geometrically incompatible once the conceptual ideas were further elaborated and design parameters were further developed
3. 'Fatally flawed' from one or more stakeholder's presumed perspective
4. Prohibitively expensive to construct.

Screened alternatives are shown and described briefly in the Appendices.

Viable alternatives were refined further by applying appropriate descriptive geometry based on assumed vehicle speeds and types, and assumed locations for structural supports and materials.

Cost Estimation

Preliminary cost estimates for viable alternatives were developed using baseline costs provided by WSDOT, and augmented where needed, due to non-standard construction or unusual site conditions.

A proposed project timeline was developed in coordination with the AWV project, SR 519 sequencing suggested from the project traffic analysis, and available and projected funding commitments. Using the timeline sequence, the project element cost estimates were escalated to the forecasted construction time frame. A range of projected costs was then recommended for each element to account for forecasting and project uncertainty.

The South Royal Brougham Way loop and pedestrian ramp features associated with SR 519 were not shown on the proposed project timeline because of the uncertainty of their implementation. Cost estimates for these features are developed in 2006 dollars for planning purposes.

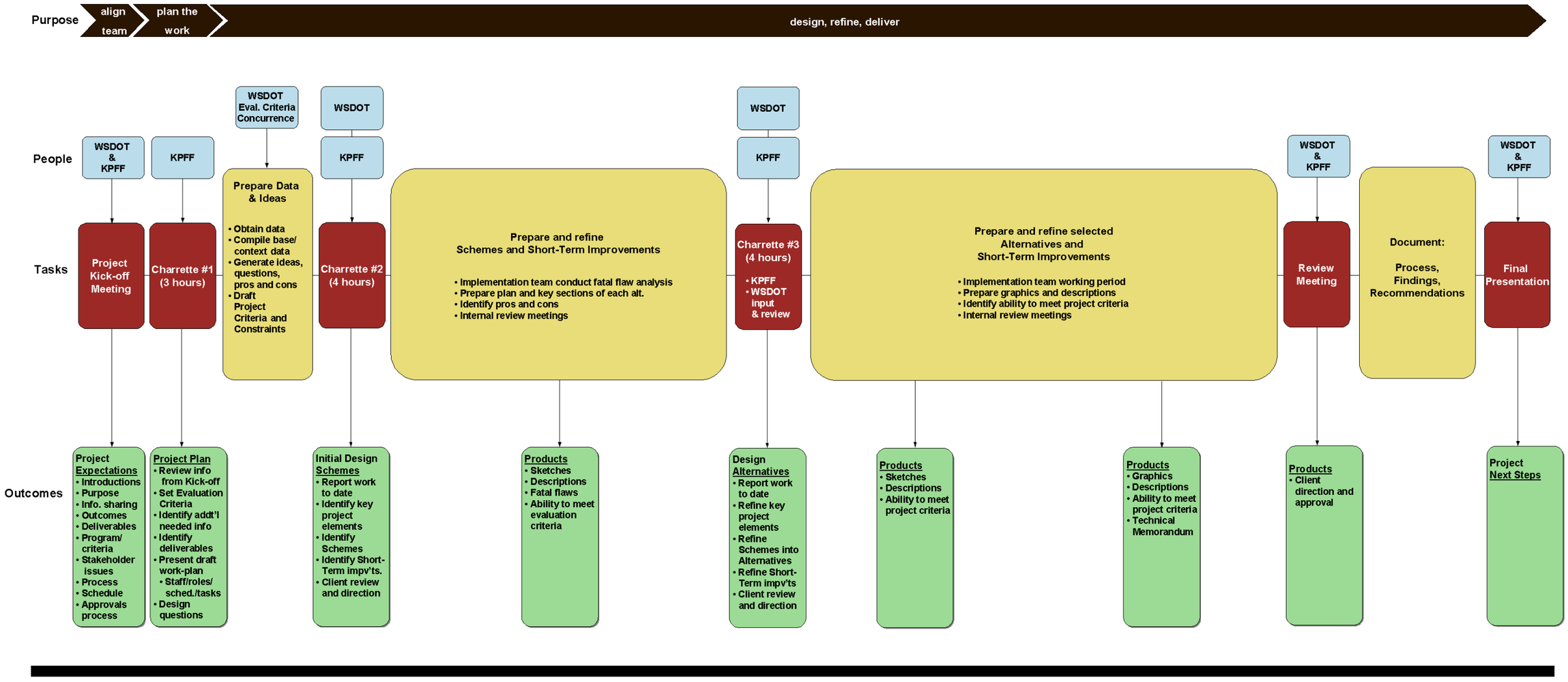

Figure 3-1: SR 519 Phase 2 Feasibility Study Process Flow Diagram